



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/805,846

03/22/2004

Ming Li

MATG-406US

3029

23122

7590

06/26/2007

RATNERPRESTIA

P O BOX 980

VALLEY FORGE, PA 19482-0980

EXAMINER

HEINRICH, SAMUEL M

ART UNIT

PAPER NUMBER

1725

MAIL DATE

DELIVERY MODE

06/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/805,846	<b>Applicant(s)</b> LI, MING	
	<b>Examiner</b> Samuel M. Heinrich	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 4-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1725

## **DETAILED ACTION**

### ***Response to Arguments***

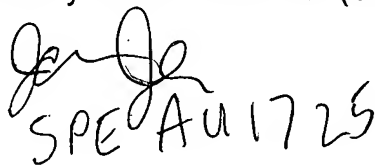
In view of the brief filed on February 05, 2007, PROSECUTION IS HEREBY REOPENED. The 35 USC 103 rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

  
SPE AU 1725

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US20020170898A1 to Ehrmann et al in view of JP357097886A.

Ehrmann et al describe a diffraction limited system for machining and describe [0104] improving processing speed with a modified elliptical spot and fluence at the workpiece. Ehrmann et al describe [0139] forming a controlled elliptical spot and describe [0144] selecting the output polarization for the beam. Ehrmann et al describe elliptical polarization of the beam [0046] [0053] (claims 13 and 20). Ehrmann et al show (Figures 13a-13c) the elliptical spot path direction. Ehrmann et al do not describe the instant claimed control of the fluence. JP357097886A shows (Figure 4) control of beam intensity across the spot. The fluence control would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because Ehrmann et al shows (Figures 19-21) and describes ([0005][0006][0094][0100][0104]) control of fluence in order to minimize substrate damage and JP357097886A describes old and well known fluence control.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US20020170898A1 to Ehrmann et al in view of USPN 6,433,301 to Dunskey et al.

Ehrmann et al describe a diffraction limited system for machining and describe [0104] improving processing speed with a modified elliptical spot and fluence at the workpiece. Ehrmann et al describe [0139] forming a controlled elliptical spot and describe [0144] selecting the output polarization for the beam. Ehrmann et al describe elliptical polarization of the beam [0046] [0053] (claims 13 and 20). Ehrmann et al show (Figures 13a-13c) the elliptical spot path direction. Ehrmann et al do not describe the

Art Unit: 1725

instant claimed control of the fluence. Dunskey et al show (Figures 5A-5C and Figure 9) fluence distributions. The fluence control would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because Ehrmann et al shows (Figures 19-21) and describes ([0005][0006][0094][0100][0104]) control of fluence in order to minimize substrate damage and Dunskey et al describe ideal fluence distributions at the work surface which produce improved cutting and reduced surface damage.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,992,026 to Fukuyo et al describe "an ellipticity regulator 201 for adjusting the ellipticity of polarization of laser light". USPN 4,634,831 to Martinen et al describe "able to adjust the plane of polarization or, as the case may be, the direction of the major axis of an elliptically polarized beam cross-section, to suit any desired conditions."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Johnson can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Samuel M Heinrich  
Primary Examiner  
Art Unit 1725

SMH